

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
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OTHER : _____																									

Work Order ID 154956

Wednesday, January 04, 2017 11:33:46 AM

154956

Page 2

Item ID: D5159-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Rib

Start Date: 1/6/2017 Start Qty: 4.00

4

Cust Item ID:

Required Date: 1/11/2017 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

QC8- Inspect parts - second check

0.00

140

QC

Memo

0.01

Quality Control

D. 17-01-28

4

φ

DAS
08
9-03

150

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

150

Powdercoat

Memo

0.01

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:25
320
8:55

4

φ

17-02-7

DAS
38
9-03

160

QC3- Inspect Part Finish

0.00

160

QC

Memo

0.01

Quality Control

4

DAS
38
9-03

FEB 07 2017

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Description Work Order Deviation				Disposition																					
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
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Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :																							
Misidentified ☐	Past Due ☐																								

Work Order ID 154956

Wednesday, January 04, 2017 11:33:46 AM

154956

Page 3

Item ID: D5159-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Rib

Start Date: 1/6/2017 Start Qty: 4.00

4

Cust Item ID:

Required Date: 1/11/2017 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Identify as per dwg & Stock Location: <u>51358</u>	0.00							
170									
Packaging	Memo	0.01				4	DAS 6 9-89		
Packaging									FEB 0 8 2017
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.07							17/2/9 <i>[Signature]</i>
Quality Control									

DAS
21
9-89

FEB 0 8 2017

DQA: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
35								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Wednesday, January 04, 2017 11:33:46 AM

Page 1

Work Order ID: 154956

154956

Parent Item: D5159-1

D5159-1

Parent Item Name: Rib

Start Date: 1/6/2017

Required Date: 1/11/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 14.10.03 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TS0.750W.049		Purchased	No				f	1,201.482		5.168421			

M304TS0 750W 049

17-01-25

DAS
32
9-89

304 SQ Tube .75x.75x.049W

Location

Loc Qty

Loc Code

WA004

1201.482

M134940

38

M135226

8.461

M135711

65

M135899

293.021

M135996

197

M136378

600

7.04

DQA: _____ Date: _____



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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

DART AEROSPACE LTD		Work Order:	154956
Description: Rib		Part Number:	D5159-1
Inspection Dwg: D5159 Rev: A		Page 1 of 1	

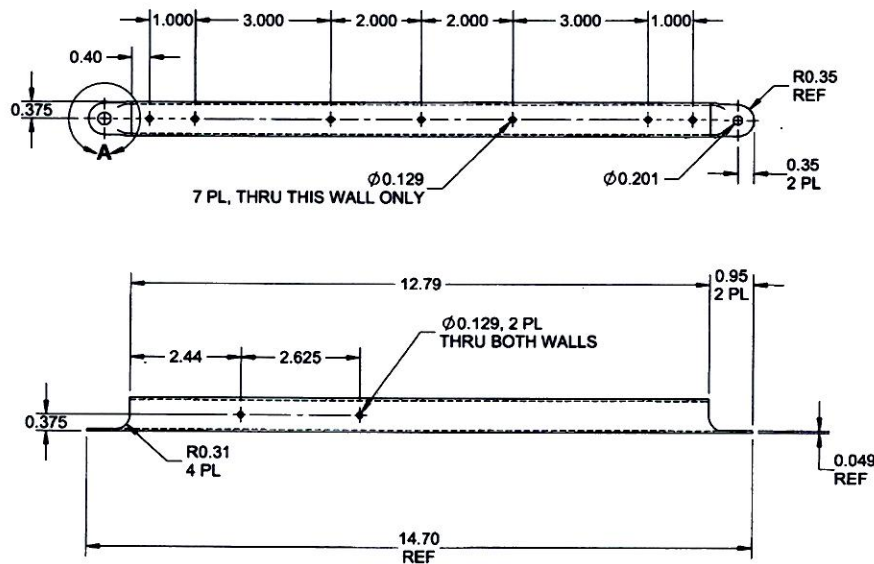
INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.70	+/-0.030	14.700	✓		Caliper	A1000
12.79	+/-0.030	12.790	✓			
0.95	+/-0.010	0.955	✓			
0.266	+/-0.010	0.266	✓			JL-L-08
0.297	+/-0.010	0.297	✓			
0.40	+/-0.030	0.395	✓			
1.000	+/-0.010	1.000	✓			
3.000	+/-0.010	3.000	✓			
2.000	+/-0.010	2.000	✓			
2.000	+/-0.010	2.000	✓			
3.000	+/-0.010	3.000	✓			
1.000	+/-0.010	1.000	✓			
Ø0.129	+0.005/-0.001	0.129	✓			
2.44	+/-0.030	2.440	✓			
2.625	+/-0.010	2.625	✓			
Ø0.129	+0.005/-0.001	0.129	✓			
R0.35	+/-0.030	0.350	✓			

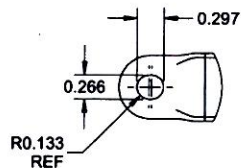
Measured by:	DAS 32	Checked by:	D.A. DAS 08	QC Inspector:	
Date:	17-01-25	Date:	17-01-28-09	Date:	

Engineering Approval: (If necessary)		Date:	
--	--	--------------	--

Rev	Date	Change	Revised by	Approved
A	15.05.14	New Issue	KJ	



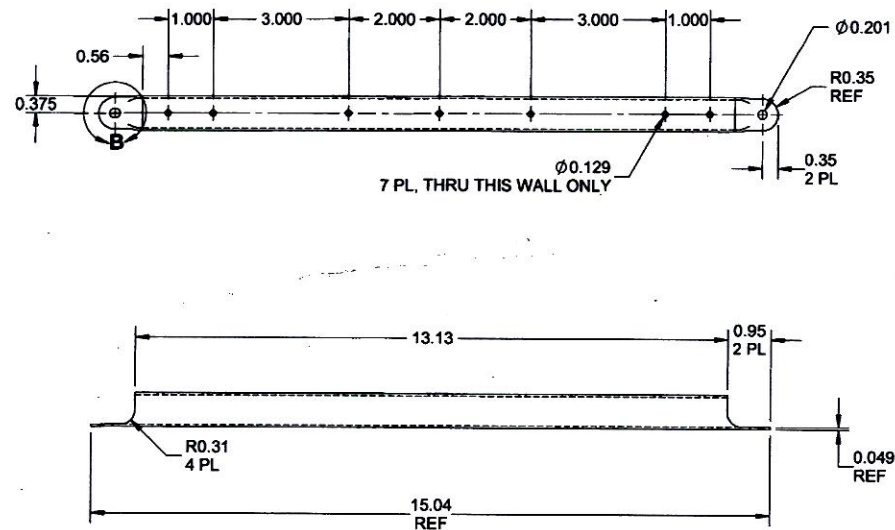
D5159-1 RIB



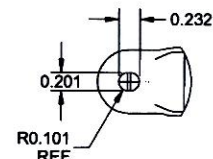
DETAIL A
SCALE 2X

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL PER ASTM A554/A269 MILL FINISH REF DART SPEC. M304TS0.750W.049
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -1: 0.49 lbs
-3: 0.50 lbs



D5159-3 SEAT RIB



DETAIL B
SCALE 2X

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154956 MWS
17-01-04

RELEASED

2015 FEB 04

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AP	DRAWING NO.	REV. A
MFG. APPR.	DD	D5159	SHEET 3 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	SEAT BRACE ASSY	NTS
DATE	14.09.24	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	